

## CLAIMS

1. A recombinant protein selected from the group consisting of:

- (a) a protein comprising the amino acid sequence represented by SEQ ID NO: 3; and,
- (b) a protein comprising an amino acid sequence derived from the amino acid sequence represented by SEQ ID NO: 3 by deletion, substitution, insertion, or addition of at least one amino acid and having the activity of endo- $\beta$ -N-acetylglucosaminidase.

2. An endo- $\beta$ -N-acetylglucosaminidase gene encoding:

- (a) a protein having the amino acid sequence represented by SEQ ID NO: 3; or,
- (b) a protein having an amino acid sequence represented by SEQ ID NO: 3 by deletion, substitution, insertion, or addition of at least one amino acid and having the activity of endo- $\beta$ -N-acetylglucosaminidase.

3. A gene comprising the following DNA:

- (c) a DNA consisting of a nucleotide sequence represented by SEQ ID NO: 2; or,
- (d) a DNA which hybridizes under stringent conditions with a DNA consisting of a nucleotide sequence represented by SEQ ID NO: 2, and which encodes a protein having endo- $\beta$ -N-acetylglucosaminidase activity.

4. A gene which hybridizes under stringent conditions with the gene according to claim 2, and which comprises DNA encoding a protein having endo- $\beta$ -N-acetylglucosaminidase activity.

5. The gene according to <sup>claim 2</sup> ~~any one of claims 2 to 4~~, wherein the gene is derived from a microorganism belonging to the genus *Mucor*.

6. The gene according to claim 5, wherein the microorganism belonging to the genus *Mucor* is *Mucor hiemalis*.

7. A recombinant vector which comprises the gene according to <sup>claim 2</sup> ~~any one of claims 2 to 6~~.

8. A transformant which comprises the recombinant vector of claim 7.

9. A method of producing endo- $\beta$ -N-acetylglucosaminidase comprising culturing the transformant according to claim 8 and collecting endo- $\beta$ -N-acetylglucosaminidase from

the culture product.

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